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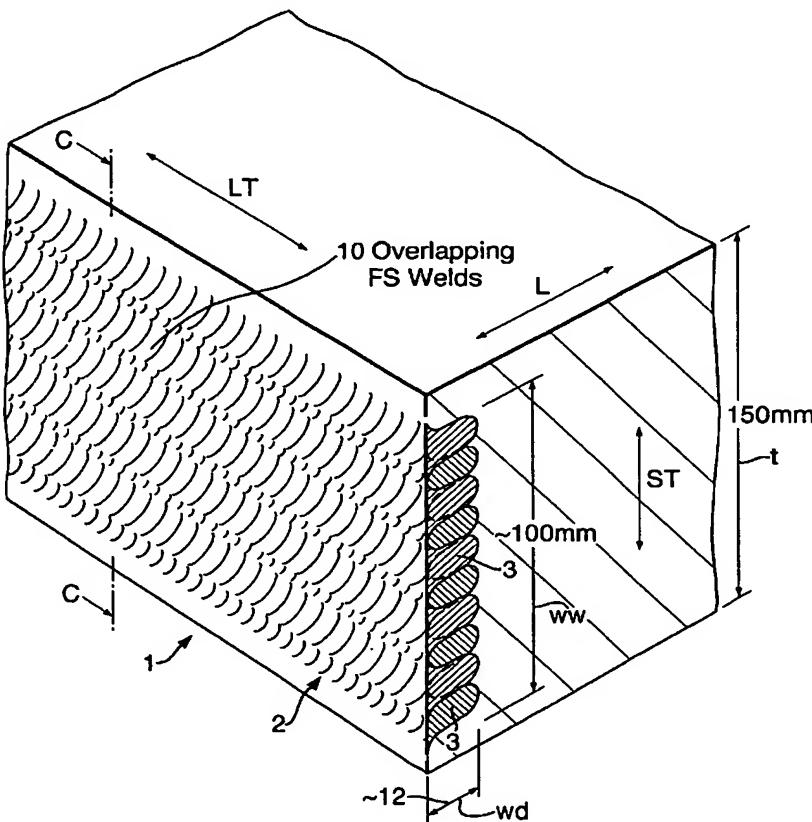
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[Continued on next page]

(54) Title: WELDING METHOD



(57) Abstract: Two aluminium alloy work-pieces are welded together. Firstly, a portion (2) of each work-piece (1) is prepared, the preparation including the performance of a surface treatment, such as friction stir welding, that results in a region (3) extending from the exterior surface into the work-piece having a grain structure that is finer than the grain structure of the work-piece outside that region. Then the work-pieces are welded together by means of a fusion welding process, such as electron beam welding, that joins the respective prepared portions (2) of the two work-pieces (1). The preparation of the work-pieces is so performed that said region (3) extends into the work-piece to a depth that exceeds the depth of material that is caused to melt during the fusion welding process.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B23K9/235 B23K15/00 B23K20/12 C22F1/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B23K C22F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Patent family members are listed in annex.

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Int'l Application No
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